



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

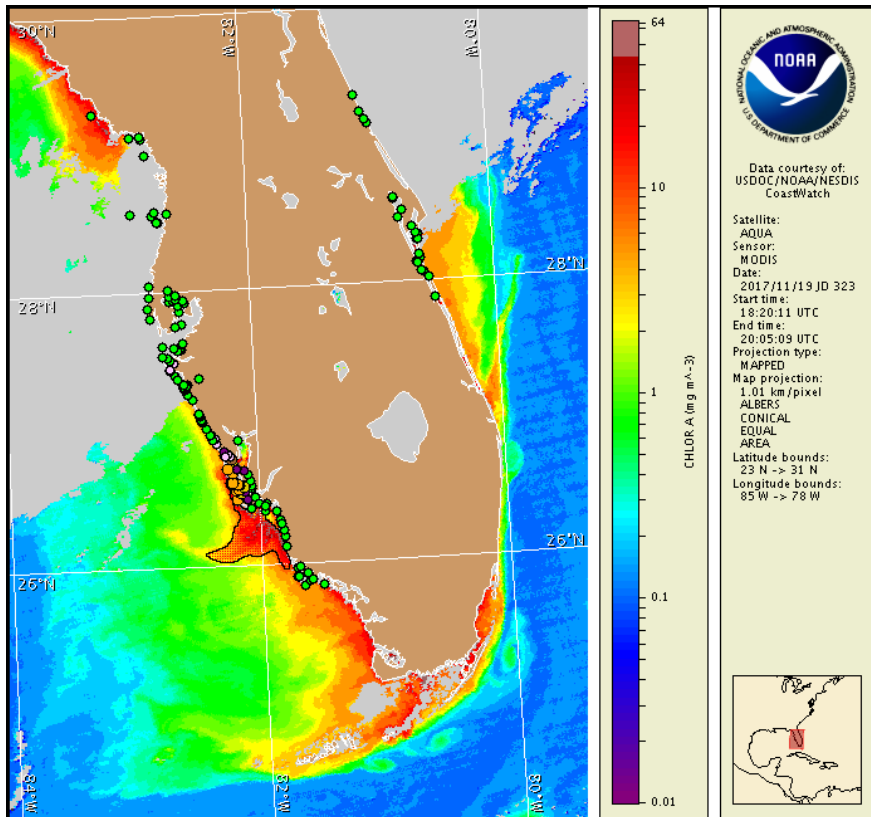
Wednesday, 22 November 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 20, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 12 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf

Detailed sample information can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <https://tidesandcurrents.noaa.gov/hab/gomx.html>

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present alongshore portions of southwest Florida and not present in the Florida Keys. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Wednesday, November 22 through Monday, November 27 is listed below:

County Region: Forecast (Duration)

Southern Charlotte, bay regions: Low (W-M)

Northern Lee: Low (W-Th, Su-M), Moderate (F-Sa)

Northern Lee, bay regions: Moderate (W-M)

Central Lee: Moderate (W-Sa), Low (Su-M)

Central Lee, bay regions: Moderate (W-M)

All Other SWFL County Regions: None expected (W-M)

Health information, from the Florida Department of Health and other agencies, is available at https://tidesandcurrents.noaa.gov/hab/gomx_health.html. For recent, local observations and data check Mote Marine Laboratory Daily Beach Conditions (<http://visitbeaches.org/>) and the Florida Fish and Wildlife Conservation Commission Red Tide Status (<http://myfwc.com/redtidestatus>). There have been no reports of respiratory irritation or dead fish.

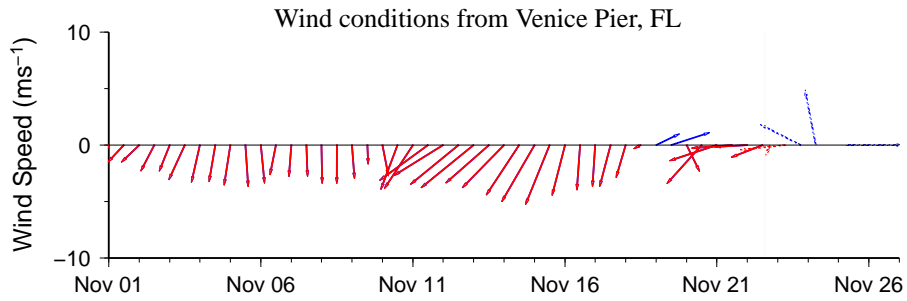
Analysis

Recent samples collected alongshore southwest Florida continue to indicate *Karenia brevis* ranges from not present to 'high' concentrations from Pinellas to Collier counties, with 'moderate' and 'high' concentrations still present in bay regions of northern and central Lee County (FWRI, MML, SCHD, CCPCD; 11/12-11/21). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 11/19) is partially obscured by clouds from Pinellas to northern Sarasota County. Elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) is present along- and offshore southwest Florida from Sarasota to Monroe counties. A patch of elevated to high chlorophyll matching the optical characteristics of *K. brevis* is visible alongshore Lee to Collier counties, and extends up to 42 miles offshore from southern Lee County.

Forecast winds are favorable for bloom intensification at the coast on Friday. Winds forecast Saturday through Monday are upwelling favorable, decreasing the potential for bloom intensification at the coast.

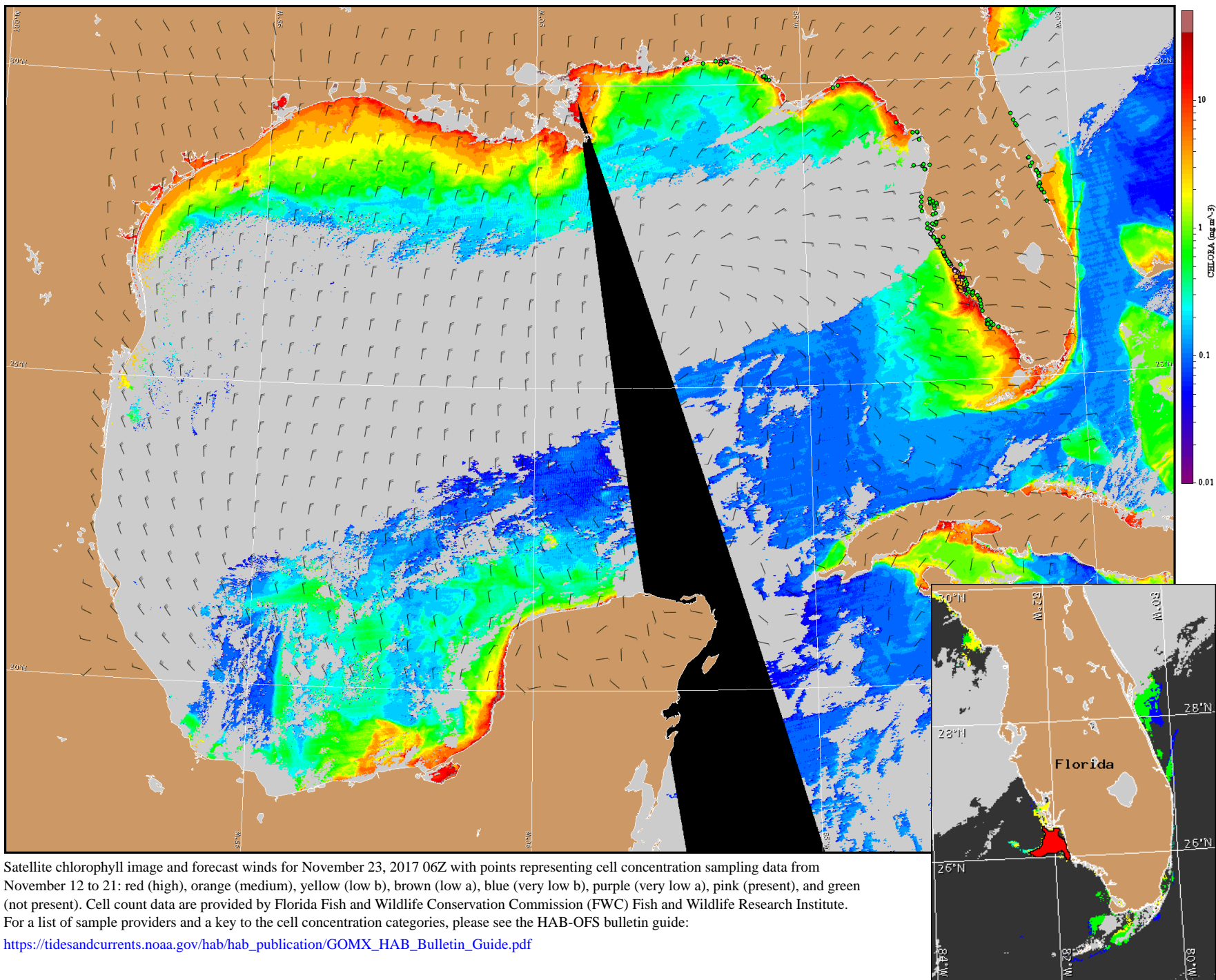
Keeney, Ludema



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Englewood to Tarpon Springs (Venice): Northeast to north winds (5-10kn, 3-5m/s) today. Southeast winds (10-15kn, 5-8m/s) Thursday and Friday. Northwest to north winds (10kn, 5m/s) Friday night through Sunday.



Satellite chlorophyll image and forecast winds for November 23, 2017 06Z with points representing cell concentration sampling data from November 12 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).